

WHAT IS CLAIMED IS:

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1. Outdoor radio equipment, comprising:
a radio transmitting and receiving part
for performing a modulation and demodulation
process; and

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a common part for controlling an action of
the radio transmitting and receiving part,
wherein the radio transmitting and
receiving part is provided at the common part so as
to be exposed to open air.

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2. The outdoor radio equipment as claimed
in claim 1,

wherein a plurality of the radio
transmitting and receiving part is provided at the
common part.

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3. The outdoor radio equipment as claimed
in claim 1,

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wherein the common part includes a first
interface part for the transmitting and receiving
part including a first connector,

the radio transmitting and receiving part
includes a second interface part for the common part
including a second connector,

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the second interface part is provided at a
side, where the common part is provided, of the

radio transmitting and receiving part, and

the radio transmitting and receiving part
is electrically connected to the common part by
engaging the second connector of the second

5 interface part with the first connector of the first
interface part.

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4. The outdoor radio equipment as claimed
in claim 3,

wherein at least one of the second
connector of the second interface part and the first
15 connector of the first interface part is floatably
supported in an installation surface.

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5. The outdoor radio equipment as claimed
in claim 3,

wherein a waterproof member is provided at
a surface where the second interface part of the
25 radio transmitting and receiving part comes in
contact with the first interface part of the common
part.

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6. The outdoor radio equipment as claimed
in claim 1,

wherein the radio transmitting and
35 receiving part includes a housing,

electrical equipment is provided inside of
the housing of the radio transmitting and receiving

part,

a radiation heat member is provided at a side to be installed to the common part, of the housing of the radio transmitting and receiving part,

5 the electrical equipment comes in contact with the housing or the radiation heat member directly or indirectly, and

the heat from the electrical equipment is transferred to open air via the housing or the
10 radiation heat member.

15 7. The outdoor radio equipment as claimed in claim 6,

wherein a gap is formed between the radiation heat member provided at the housing part and the common part when the radio transmitting and
20 receiving part is installed to the common part.

25 8. The outdoor radio equipment as claimed in claim 3,

wherein the radio transmitting and receiving part includes a shaft member,

the shaft member is provided at an upper
30 part of the side where the radio transmitting and receiving part is installed to the common part,

the common part includes a bearing part,
the bearing part is provided at an upper
part of the side where the common part is installed
35 to the radio transmitting and receiving part, and

the shaft member is hung in the bearing part and rotated, so that the radio transmitting and

receiving part is connected to the common part.

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9. The outdoor radio equipment as claimed in claim 1,

wherein the common part includes:

an electric power source part for

10 converting a first electric power source to a second electric power source and supplying electric power to electronic components provided at the common part,

a control part for monitoring the radio transmitting and receiving part installed to the
15 common part, and controlling a branching part for selecting a signal and distributing the signal to the radio transmitting and receiving part, and

a switching part for switching one of a plurality of the radio transmitting and receiving
20 parts installed to the common part.

25 10. The outdoor radio equipment as claimed in claim 6,

wherein the electronic equipment provided at the housing of the radio transmitting and receiving part includes:

30 an electric power source part for supplying an electric power to electronic components provided at the radio transmitting and receiving part,

a microwave transmitting part for
35 converting information to a signal to be transmitted,
a microwave receiving part for converting a received signal to information; and

a modulation and demodulation part for
modulating and demodulating a signal wave.

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11. A radio unit, the radio unit being
installed to a common part which has a function of
transmitting and receiving a radio signal via an
10 antenna and a substantially box-type configuration,
the radio unit having a modulation and
demodulation part for performing a demodulation
process of an input radio signal of the common part,
outputting the demodulated signal to the common part,
15 performing a modulation process by using another
radio signal input from the common part, and
outputting a modulated wave to the common part,

the radio unit, comprising:

a second connector part which is engaged
20 with a first connector part of a side surface of the
common part when the modulation and demodulation
part is installed to the common part and which
transmits and receives a signal including the radio
signal,

25 an installation part for installing the
modulation and demodulation part to the side surface
of the common part, and

a radiation heat structure for preventing
an temperature from increasing in the modulation and
30 demodulation part.

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